UNITED STATES ENVIRONMENTAL PROTECTION AGENCY STANDARD ANNULAR PRESSURE TEST

Operator ANR Pipeline Company			State Permit No. 21136	
Address 11039 150th Avenue			USEPA Permit No. MI-133-2D-0013	
Big Rapids, Michigan 49307			Date of Test 05-16-13	
Well Name Andersen 1			Well Type Brine Disposal	
LOCATION INFORMATION N/2 Quarter of the NE Quarter of the sw Quarter				
Total and full track against 17 S.				
o construction and construction are also constructed as the construction of the constr				
Company Representative Randy Rice ; Field Inspector None ;				
Type of Pressure Gauge Z-1 Probe #9726 inch face; 6000# psi full scale; psi increments;				
New Gauge? Yes □ No ☑ If no, date of calibration ☐ Calibration certification submitted? Yes □ No ☑				
TEST RESULTS			5-year or annual test on time? Yes □ No □	
Readings must be taken at least every 10 minutes for a minimum of 30 minutes for Class II, III and V wells and 60			2-year test for TA'd wells on time? Yes □ No □	
minutes for Class I walls			EVEN 1 PROCESSES (AND SERVICE SOURCE) CONTROL WAY AND CONTROL PROCESSES AND AND CONTROL CONTROL OF	
For Class II wells, annulus pressue should be at least 300			After rework? Yes ☑ No □	
psig. For Class I wells, annulus pressure should be the			Newly permitted well? Yes ■ No ■	
greater of 300 psig or 100 psi above maximum permitted injection pressure.				
Original chart record	dings must be subm	itted with this form	77	
·		Title (Title Sills Tollin)		
	Pressure (
Time	Annulus	Tubing	Casing size5-1/2"	
Start of test	322.95844	_0	Tubing size 2-3/8" Packer type Baker Retrieva-D	
5 minutes	321.24698 320.70889	0	Packer type Baker Retrieva-D Packer set @ 3567.5'	
_ 10 minutes 15 minutes	320.29266	0	Top of Permitted Injection Zone 3614'	
20 minutes	319.50797	0	Is packer 100 ft or less above top of	
25 minutes	319.50797	0	Injection Zone ? Yes ☑ No □	
30 minutes (final)	319.14102	0	If not, please submit a justification.	
			Fluid return (gal.) 4 gallons	
			Comments:	
Toot Drogguroo	May Allowable	Draggura Changa, Ini	tial test pressure x 0.03 9.68875 psi	
Test Pressures:	Max. Allowable		tial test pressure x 0.03 9.68875 psi st Period Pressure change 3.81742 psi	
Test Passed	Test Failed		6- <u>11111 1111 1111 1111 1111 1111 1111 </u>	
Test Passed 🔟	restraned			
If failed test, well m	nust he shut in no ir	niection can occur an	d USEPA must be contacted within 24 hours	
If failed test, well must be shut in, no injection can occur, and USEPA must be contacted within 24 hours. Corrective action needs to occur, the well retested, and written authorization received before injection can				
recommence.				
I certify under penalty of law that this document and all attachments are, to the best of my knowledge and				
belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false				
information, including the possibility of fine and imprisonment for knowing violations. (See 40 CFR 144.32(d))				

Randy A. Rice

Printed Name of Company Representative Signature of Company Representative

5/16/2013

Date

AND MINERALS

ANNULAR PRESSURE TEST

	Permit Number 21136
By authority of Part 615 or Part 625 of Act 451 PA 1994, as arnended. Non-submission and/or falsification of this information	Well name & No. Andersen-1
may result in fines and/or imprisonment.	Surface location N/2 1/4 of NE 1/4 of SW 1/4, Section 08 T 17R R 10W
Name and address of permittee ANR Pipeline Company 11039 150 th Avenue	Township County Richmond Osceola
Big Rapids, MI 49307	Well type
	Part 615 Secondary recovery Brine disposal
	Part 625 Waste disposal Solution mining
Data afficial	
Date of test 05/16/2013	Casing Tubing 5 1/2 2 3/8
Type of gauge Z-I Probe	Packer type/model Packer depth Baker Retreive-D 3567.5
inch face psi range 0-6000#	
New gauge Yes No	Type of non-corrosive Inhibited brine
if no, enter date of test calibration Average rate during injection	liquid in the annulus Maximum allowed injection pressure
120 bbl./day	905
	TEST DATA
	Pressure readings (psig)
Time Annulus tubi 0 322.95844 0	ng Time Annulus tubing
0 322.95844 0 10 320.70889 0	
20 319.50797 0	
30 319.14102 0	
	A STATE OF THE STA
	JUN 1 2 2843
	EFA, REGION 5
Comments	
Certification if witnessed by DEQ representative:	
Signature of DEQ employee	Date
Certification if not witnessed by DEQ representative: "I state tha	I am authorized by said owner. This report was prepared under my supervision and
direction. The facts stated herein are true, accurate and comple	te to the best of my knowledge."
Signature Randy A. Rice Randy A. Rice	. AFIA010040
Signature Randy A. Rice Kaudy H. Mc	Date 05/16/2013

MAIL TO: OFFICE OF OIL, GAS, AND MINERALS